

## RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/656,093 b  
Source: JFWO  
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# ***ENTERED***



IFWO

## RAW SEQUENCE LISTING

DATE: 11/02/2004

PATENT APPLICATION: US/10/656,093D

TIME: 12:52:15

Input Set : A:\PTO.FY.txt

Output Set: N:\CRF4\11022004\J656093D.raw

3 <110> APPLICANT: YOUNG, ANDREW A.  
 4 VINE, WILL  
 5 BEELEY, NIGEL R.A.  
 6 PRICKETT, KATHRYN S.  
 8 <120> TITLE OF INVENTION: INOTROPIC AND DIURETIC EFFECTS OF GLP-1 AND GLP-1 AGONISTS  
 10 <130> FILE REFERENCE: 256-152DIV US  
 12 <140> CURRENT APPLICATION NUMBER: 10/656,093D  
 13 <141> CURRENT FILING DATE: 2003-09-05  
 15 <160> NUMBER OF SEQ ID NOS: 75  
 17 <170> SOFTWARE: PatentIn Ver. 2.1  
 19 <210> SEQ ID NO: 1  
 20 <211> LENGTH: 39  
 21 <212> TYPE: PRT  
 22 <213> ORGANISM: Heloderma horridum  
 24 <220> FEATURE:  
 25 <223> OTHER INFORMATION: Exendin-3  
 27 <400> SEQUENCE: 1  
 28 His Ser Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
 29 1 5 10 15  
 31 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
 32 20 25 30  
 34 Ser Gly Ala Pro Pro Pro Ser  
 35 35  
 38 <210> SEQ ID NO: 2  
 39 <211> LENGTH: 39  
 40 <212> TYPE: PRT  
 41 <213> ORGANISM: Heloderma suspectum  
 43 <220> FEATURE:  
 44 <223> OTHER INFORMATION: Exendin-4  
 46 <400> SEQUENCE: 2  
 47 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
 48 1 5 10 15  
 50 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
 51 20 25 30  
 53 Ser Gly Ala Pro Pro Pro Ser  
 54 35  
 57 <210> SEQ ID NO: 3  
 58 <211> LENGTH: 30  
 59 <212> TYPE: PRT  
 60 <213> ORGANISM: Homo sapiens  
 62 <220> FEATURE:  
 63 <223> OTHER INFORMATION: GLP-1  
 65 <400> SEQUENCE: 3

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Input Set : A:\PTO.FY.txt

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66 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
67 1 5 10 15  
69 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg  
70 20 25 30  
73 <210> SEQ ID NO: 4  
74 <211> LENGTH: 39  
75 <212> TYPE: PRT  
76 <213> ORGANISM: Artificial Sequence  
78 <220> FEATURE:  
79 <223> OTHER INFORMATION: Description of Artificial Sequence: Exendin or  
80 exendin agonist  
82 <220> FEATURE:  
83 <221> NAME/KEY: MOD\_RES  
84 <222> LOCATION: (1)  
85 <223> OTHER INFORMATION: His, Arg or Tyr  
87 <220> FEATURE:  
88 <221> NAME/KEY: MOD\_RES  
89 <222> LOCATION: (2)  
90 <223> OTHER INFORMATION: Ser, Gly, Ala or Thr  
92 <220> FEATURE:  
93 <221> NAME/KEY: MOD\_RES  
94 <222> LOCATION: (3)  
95 <223> OTHER INFORMATION: Asp, Ala or Glu  
97 <220> FEATURE:  
98 <221> NAME/KEY: MOD\_RES  
99 <222> LOCATION: (5)  
100 <223> OTHER INFORMATION: Ala or Thr  
102 <220> FEATURE:  
103 <221> NAME/KEY: MOD\_RES  
104 <222> LOCATION: (6)  
105 <223> OTHER INFORMATION: Ala, Phe, Tyr or naphthylalanine  
107 <220> FEATURE:  
108 <221> NAME/KEY: MOD\_RES  
109 <222> LOCATION: (7)  
110 <223> OTHER INFORMATION: Thr or Ser  
112 <220> FEATURE:  
113 <221> NAME/KEY: MOD\_RES  
114 <222> LOCATION: (8)  
115 <223> OTHER INFORMATION: Ala, Ser or Thr  
117 <220> FEATURE:  
118 <221> NAME/KEY: MOD\_RES  
119 <222> LOCATION: (9)  
120 <223> OTHER INFORMATION: Asp or Glu  
122 <220> FEATURE:  
123 <221> NAME/KEY: MOD\_RES  
124 <222> LOCATION: (10)  
125 <223> OTHER INFORMATION: Ala, Leu, Ile, Val, pentylglycine or Met  
127 <220> FEATURE:  
128 <221> NAME/KEY: MOD\_RES

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Input Set : A:\PTO.FY.txt

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129 <222> LOCATION: (11)  
130 <223> OTHER INFORMATION: Ala or Ser  
132 <220> FEATURE:  
133 <221> NAME/KEY: MOD\_RES  
134 <222> LOCATION: (12)  
135 <223> OTHER INFORMATION: Ala or Lys  
137 <220> FEATURE:  
138 <221> NAME/KEY: MOD\_RES  
139 <222> LOCATION: (13)  
140 <223> OTHER INFORMATION: Ala or Gln  
142 <220> FEATURE:  
143 <221> NAME/KEY: MOD\_RES  
144 <222> LOCATION: (14)  
145 <223> OTHER INFORMATION: Ala, Leu, Ile, pentylglycine, Val or Met  
147 <220> FEATURE:  
148 <221> NAME/KEY: MOD\_RES  
149 <222> LOCATION: (15)...(17)  
150 <223> OTHER INFORMATION: Ala or Glu  
152 <220> FEATURE:  
153 <221> NAME/KEY: MOD\_RES  
154 <222> LOCATION: (19)  
155 <223> OTHER INFORMATION: Ala or Val  
157 <220> FEATURE:  
158 <221> NAME/KEY: MOD\_RES  
159 <222> LOCATION: (20)  
160 <223> OTHER INFORMATION: Ala or Arg  
162 <220> FEATURE:  
163 <221> NAME/KEY: MOD\_RES  
164 <222> LOCATION: (21)  
165 <223> OTHER INFORMATION: Ala or Leu  
167 <220> FEATURE:  
168 <221> NAME/KEY: MOD\_RES  
169 <222> LOCATION: (22)  
170 <223> OTHER INFORMATION: Phe, Tyr or naphthylalanine  
172 <220> FEATURE:  
173 <221> NAME/KEY: MOD\_RES  
174 <222> LOCATION: (23)  
175 <223> OTHER INFORMATION: Ile, Val, Leu, pentylglycine, tert-butylglycine or Met  
177 <220> FEATURE:  
178 <221> NAME/KEY: MOD\_RES  
179 <222> LOCATION: (24)  
180 <223> OTHER INFORMATION: Ala, Glu or Asp  
182 <220> FEATURE:  
183 <221> NAME/KEY: MOD\_RES  
184 <222> LOCATION: (25)  
185 <223> OTHER INFORMATION: Ala, Trp, Phe, Tyr or naphthylalanine  
187 <220> FEATURE:  
188 <221> NAME/KEY: MOD\_RES  
189 <222> LOCATION: (26)

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Input Set : A:\PTO.FY.txt

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190 <223> OTHER INFORMATION: Ala or Leu  
192 <220> FEATURE:  
193 <221> NAME/KEY: MOD\_RES  
194 <222> LOCATION: (27)  
195 <223> OTHER INFORMATION: Ala or Lys  
197 <220> FEATURE:  
198 <221> NAME/KEY: MOD\_RES  
199 <222> LOCATION: (28)  
200 <223> OTHER INFORMATION: Ala or Asn  
202 <220> FEATURE:  
203 <221> NAME/KEY: MOD\_RES  
204 <222> LOCATION: (29)  
205 <223> OTHER INFORMATION: Gly  
207 <220> FEATURE:  
208 <221> NAME/KEY: MOD\_RES  
209 <222> LOCATION: (30)  
210 <223> OTHER INFORMATION: Gly  
212 <220> FEATURE:  
213 <221> NAME/KEY: MOD\_RES  
214 <222> LOCATION: (31)  
215 <223> OTHER INFORMATION: Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine  
216 N-alkylpentylglycine or N-alkylalanine  
218 <220> FEATURE:  
219 <221> NAME/KEY: MOD\_RES  
220 <222> LOCATION: (32)  
221 <223> OTHER INFORMATION: Ser  
223 <220> FEATURE:  
224 <221> NAME/KEY: MOD\_RES  
225 <222> LOCATION: (33)  
226 <223> OTHER INFORMATION: Ser  
228 <220> FEATURE:  
229 <221> NAME/KEY: MOD\_RES  
230 <222> LOCATION: (34)  
231 <223> OTHER INFORMATION: Gly  
233 <220> FEATURE:  
234 <221> NAME/KEY: MOD\_RES  
235 <222> LOCATION: (35)  
236 <223> OTHER INFORMATION: Ala  
238 <220> FEATURE:  
239 <221> NAME/KEY: MOD\_RES  
240 <222> LOCATION: (36)..(38)  
241 <223> OTHER INFORMATION: Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine  
242 N-alkylpentylglycine or N-alkylalanine  
244 <220> FEATURE:  
245 <221> NAME/KEY: MOD\_RES  
246 <222> LOCATION: (39)  
247 <223> OTHER INFORMATION: Ser, Thr or Tyr  
249 <220> FEATURE:  
250 <223> OTHER INFORMATION: provided no more than three of Xaa3, Xaa5, Xaa6, Xaa8,

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Input Set : A:\PTO.FY.txt

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251 Xaa10, Xaa11, Xaa12, Xaa13, Xaa14, Xaa15, Xaa16, Xaa17,  
 252 Xaa19, Xaa20, Xaa21, Xaa24, Xaa25, Xaa26, Xaa27 or Xaa28  
 253 are Ala; and the compound is not exendin-3 or exendin-4  
 255 <220> FEATURE:  
 256 <223> OTHER INFORMATION: this peptide may encompass 28-39 residues, wherein  
 257 residues 1-28 are constant and residues 29-39 may vary  
 258 in length according to the specification  
 260 <400> SEQUENCE: 4  
 W--> 261 Xaa Xaa Xaa Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 262 1 5 10 15  
 264 Xaa Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 265 20 25 30  
 267 Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 268 35  
 270 <210> SEQ ID NO: 5  
 271 <211> LENGTH: 30  
 272 <212> TYPE: PRT  
 273 <213> ORGANISM: Artificial Sequence  
 275 <220> FEATURE:  
 276 <223> OTHER INFORMATION: Description of Artificial Sequence: Exendin or  
 277 GLP-1 agonist  
 279 <220> FEATURE:  
 280 <223> OTHER INFORMATION: C-term may be amidated  
 282 <400> SEQUENCE: 5  
 283 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
 284 1 5 10 15  
 286 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly  
 287 20 25 30  
 290 <210> SEQ ID NO: 6  
 291 <211> LENGTH: 28  
 292 <212> TYPE: PRT  
 293 <213> ORGANISM: Artificial Sequence  
 295 <220> FEATURE:  
 296 <223> OTHER INFORMATION: Description of Artificial Sequence: Exendin or  
 297 GLP-1 agonist  
 299 <220> FEATURE:  
 300 <223> OTHER INFORMATION: C-term amidated  
 302 <400> SEQUENCE: 6  
 303 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
 304 1 5 10 15  
 306 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn  
 307 20 25  
 310 <210> SEQ ID NO: 7  
 311 <211> LENGTH: 28  
 312 <212> TYPE: PRT  
 313 <213> ORGANISM: Artificial Sequence  
 315 <220> FEATURE:  
 316 <223> OTHER INFORMATION: Description of Artificial Sequence: Exendin or  
 317 GLP-1 agonist

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/656,093D

DATE: 11/02/2004  
TIME: 12:52:16

Input Set : A:\PTO.FY.txt

Output Set: N:\CRF4\11022004\J656093D.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. ~~1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20,21,22,23,24~~

Seq#:4; Xaa Pos. ~~25,26,27,28,29,30,31,32,33,34,35,36,37,38,39~~

Seq#:47; Xaa Pos. 31,36,37,38

Seq#:48; Xaa Pos. 36,37,38

Seq#:49; Xaa Pos. 31

Seq#:50; Xaa Pos. 31,36,37

Seq#:51; Xaa Pos. 31,36,37

Seq#:52; Xaa Pos. 31,36

Seq#:55; Xaa Pos. 6

Seq#:59; Xaa Pos. 10

Seq#:60; Xaa Pos. 22

Seq#:61; Xaa Pos. 23

Seq#:65; Xaa Pos. 31,36,37

Seq#:66; Xaa Pos. 19

Seq#:67; Xaa Pos. 17

Seq#:75; Xaa Pos. 29

## VERIFICATION SUMMARY

DATE: 11/02/2004

PATENT APPLICATION: US/10/656,093D

TIME: 12:52:16

Input Set : A:\PTO.FY.txt

Output Set: N:\CRF4\11022004\J656093D.raw

L:261 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
M:341 Repeated in SeqNo=4  
L:1160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:16  
M:341 Repeated in SeqNo=47  
L:1191 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:32  
L:1216 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:16  
L:1249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:16  
M:341 Repeated in SeqNo=50  
L:1282 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:16  
M:341 Repeated in SeqNo=51  
L:1315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:16  
M:341 Repeated in SeqNo=52  
L:1383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:0  
L:1468 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0  
L:1496 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:16  
L:1521 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:16  
L:1614 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:16  
M:341 Repeated in SeqNo=65  
L:1660 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:16  
L:1667 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:67  
L:1694 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:16  
L:1895 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:16